

Claims

- [c1] A method for operating a system having a plurality of modes and interlocks between the modes, said method comprising:
operating the system in a first mode; and
switching the system to a second mode without going to a standby mode.
- [c2] A method in accordance with Claim 1 wherein operating the system in a first mode comprises operating the system comprising a nuclear power plant system in a first mode.
- [c3] A method in accordance with Claim 1 wherein switching the system to a second mode comprises switching the system to a second mode without going to a standby mode, at least one of the first mode and the second mode comprises at least one of a residual heat removal mode, a reactor core isolation cooling mode, and a high pressure core flood mode.
- [c4] A method in accordance with Claim 1 further comprising manually changing the system while operating in the first mode.
- [c5] A method in accordance with Claim 1 further comprising verifying a plurality of second mode permissives prior to switching the system to the second mode.
- [c6] A method in accordance with Claim 1 wherein switching the system to a second mode without going to a standby mode comprises switching the system to a second mode using a fail safe initiation logic program.
- [c7] A method for operating a system having a plurality of modes and interlocks between the modes, said method comprising:
operating the system in a first mode;
manually changing the system while operating in the first mode; and
re-initializing the system in the first mode without going to a standby mode.
- [c8] A method in accordance with Claim 7 wherein operating the system in a first mode comprises operating the system comprising a nuclear power plant system in a first mode.

- [c9] A method in accordance with Claim 7 wherein re-initializing the system in the first mode comprises re-initializing the system in the first mode without going to a standby mode, the first mode comprises at least one of a residual heat removal mode, a reactor core isolation cooling mode, and a high pressure core flood mode.

- [c10] A method in accordance with Claim 7 further comprising verifying a plurality of first mode permissives prior to re-initializing the system in the first mode.

- [c11] A method in accordance with Claim 7 wherein re-initializing the system in the first mode without going to a standby mode comprises re-initializing the system in the first mode using a fail safe initiation logic program.

- [c12] A system having a plurality of modes and interlocks between the modes, said system comprising:
 a computer; and
 a fail safe initiation logic program installed on said computer and configured to:
 operate said system in a first mode; and
 switch said system to a second mode without going to a standby mode.

- [c13] A system in accordance with Claim 12 wherein said system further comprises a nuclear power plant system.

- [c14] A system in accordance with Claim 12 wherein said computer further configured to operate said system in a first mode comprising at least one of a residual heat removal mode, a reactor core isolation cooling mode, and a high pressure core flood mode.

- [c15] A system in accordance with Claim 12 wherein to switch the system to a second mode without going to a standby mode, said computer further configured to verify a plurality of second mode permissives prior to switching the system to the second mode.

- [c16] A computer readable medium encoded with a program executable by a computer for operating a system having a plurality of modes and interlocks between the modes, said program configured to instruct the computer to:

operate the system in a first mode; and
switch the system to a second mode without going to a standby mode.

[c17] A computer readable medium in accordance with Claim 16 wherein to operate the system in a first mode, said program further configured to instruct the computer to:
operate a nuclear power plant in a first mode; and
switch the nuclear power plant to a second mode without going to a standby mode.

[c18] A computer readable medium in accordance with Claim 16 wherein to operate the system in a first mode, said program further configured to instruct the computer to operate a system having at least one of a residual heat removal mode, a reactor core isolation cooling mode, and a high pressure core flooders mode.

[c19] A computer readable medium in accordance with Claim 16 wherein to switch the system to a second mode without going to a standby mode, said program further configured to instruct the computer to verify a plurality of second mode permissives prior to switching the system to the second mode.